

ABSTRACT OF THE DISCLOSURE

The present invention is directed to a planar flow field design having an intake manifold and an exhaust manifold which are configured in two offset planes. A relatively short passage extends from the intake manifold through the exhaust manifold and terminates at a reactive face of a membrane electrode assembly (MEA) such that a differential flow distribution is provided from the intake manifold through the passage and across a reactive face of the MEA to the exhaust manifold.